Descriptions of Deliverables

All status information, presentation material, and report deliverables applicable to IIP award should be submitted to the web-based ESTO Reporting System (ERS). A user account on the ERS will be provided to the PI upon award.

The following deliverables are required of awarded proposals. In cases where subcontract arrangements exist, consolidated project reports are the responsibility of the PI. The proposed budget should provide for these reporting requirements. In this context, "Annual" refers to a twelve-month task effort that commences at award.

7.1 <u>Initial Plans and Reports</u>

Within 15 days of award, provide an updated Project Plan, initial Quad Chart, and initial TRL assessment. Also, provide a monthly cost plan for the entire period of performance. The project plan, initial (entry) Quad Chart, cost plan, and initial TRL assessment (and supporting data) should be uploaded in the ERS.

The project plan shall identify plans for all technical, schedule, and resource activities for the proposed life of the project.

The Quad Chart should contain the following information:
- Upper Left Quadrant: "Objective"
- Lower Left Quadrant: "Approach" and "Co-Is/Partners"
- Upper Right Quadrant: A visual, graphic, or other pertinent information
- Lower Right Quadrant: "Key Milestones" and "Entry TRL."

Proposers are required to update the Quad Chart and TRL assessment at least annually and more often, if appropriate. This can be done on the ERS under the "Quad Chart" section and "TRL" section respectively.

7.2 <u>Bimonthly Technical Reports</u>

The bimonthly technical report shall focus on the preceding two months' efforts. Address the following in each report:
1. Technical status: Summarize accomplishments for the preceding two months, including technical accomplishments (trade study results, requirements analysis, design, etc.), technology development results, and results of tests and/or demonstrations.
2. Schedule status: Address the status of major tasks and the variance from planned versus actual schedule, including tasks completed, tasks in process, tasks expected to complete later than planned, and tasks that are delayed in starting, with rationale for each and recovery plans, as appropriate.

Upload the Bimonthly Technical Reports to the appropriate location in the ERS at two-month intervals, starting on the second-month anniversary date of the start date specified in the award vehicle. In months for which the PI is providing interim or annual review, the requirement for a

bimonthly report is superseded by the interim or annual review requirements discussed in the next two sections.

Reports may be submitted in PDF, Microsoft Word, or Microsoft PowerPoint compatible file formats by the required due date, or by close of business of the first workday following the due date if the due date falls on a weekend or a holiday. A teleconference or brief meeting may be conducted between the ESTO and the PI to review and discuss each report.

7.3 <u>Interim Reviews</u>

An Interim Review occurs at the end of the first six-month calendar period commencing from the date of award and at twelve-month intervals thereafter. The PI must provide a presentation summarizing the work accomplished and results leading up to this Interim Review and must:

1. Describe the primary findings, technology development results, and technical status, e.g., status of design, construction of breadboards or prototype implementations, results of tests and/or proof-of-concept demonstrations, etc.;
2. Describe the work planned for the remainder of the project and critical issues that need to be resolved to successfully complete the remaining planned work;
3. Summarize the cost and schedule status of the project, including any schedule slippage/acceleration. Create and maintain a schedule milestone chart of all major task activities and show at all reviews. Also, create and main a cost data sheet that shows total project costs obligated and costed, along with a graphical representation of the project cost profile to completion;
4. Provide a summary of anticipated results at the end of the task; and
5. At the second review and subsequent reviews, address the comments and recommendations prepared by the reviewers participating in the most recent review.

The Interim Review will be conducted via teleconference and uploaded to the appropriate location in the ERS at least three (3) working days prior to the review. Following the review, the presentation, updated in accordance with comments and discussion resulting from the review, shall be uploaded to the appropriate location in the ERS within ten days after the review.

7.4 <u>Annual Reviews</u>

An Annual Review occurs at the end of each twelve-month calendar period commencing from the date of award. The Annual Reviews are similar to the Interim Reviews and include all of the products required at an Interim Review with the following exceptions:

1. The review is held at the PI's facility or a mutually agreed to location.
2. The PI may provide a laboratory demonstration, if appropriate, to show technical results and status.
3. Report any educational and outreach components of the project, e.g., graduate degrees, educational activities; technology infusion or patents applied for or granted; journal or conference publications; presentations at professional conferences, seminars and symposia; demonstrations; media exposure; and, other activities that contributed to the overall success of the research project.

4. The Annual Review should be comprehensive, and should cover the progress over the previous twelve months.

Upload the review package to the appropriate location in the ERS at least three (3) working days prior to the review. The presentation, updated in accordance with comments and discussion resulting from the review shall be uploaded to the appropriate location in the ERS within ten days after the review.

7.5 <u>Final Review and Final Report</u>

The Final Review occurs at the completion of the activity. The Final Review is similar to the Annual Reviews and includes all of the products required at an Annual Review. In addition, the final review must provide conclusions of the work performed and make recommendations for follow-on activities that should be pursued, with estimates of the cost and schedule to advance the TRL to the next level.

Include the following in the written Final Report:
1. Background of the project, including the science rationale for conducting this technology development;
2. Results of all analyses, element, subsystem, or system designs, breadboards and/or prototyping implementations and designs;
3. Performance analysis results of tests and/or demonstrations; estimation of reduction(s) in size, mass, power, volume and/or cost; improved performance; description of newly enabled capability; and documentation of technology dependencies;
4. Tables, graphs, diagrams, curves, sketches, photographs, and drawings in sufficient detail to comprehensively explain the results achieved;
5. An updated TRL assessment, including a rough order of magnitude cost and a description and estimate of the duration of the follow-on activities necessary to advance the TRL to next level;
6. Updated Quad Chart; and
7. At the end of the period of performance, the PI shall create a final Accomplishments Chart which contains the following information (a template is available in the ERS):
   - Upper Left: "Objective"
   - Upper Right: A visual, graphic, or other pertinent information.
   - Middle: "Accomplishments."
   - Bottom: "Co-Is" (name and affiliation), "Entry TRL" and "Exit TRL."

The Final Report and updated Final Review presentation shall be uploaded to the appropriate locations in the ERS within thirty days of the final review. Also, upload the updated Accomplishment Chart and TRL assessment spreadsheet (provided by ESTO).